

AMENDMENT UNDER 37 CFR § 1.111  
Serial No. 09/489,929

REMARKS

A total of 54 claims remain in the present application. The foregoing amendments are presented in response to the Office Action mailed March 12, 2004, wherefore reconsideration of this application is requested.

By way of the above-noted amendments, claims 1 and 21 have been amended for consistency. In particular, claims 1 and 21 have been amended to define that the steps of examining links to identify a poorly performing link; and temporarily interrupting bi-direction data transmission through the poorly performing link are implemented at the base station of the wireless network, which is consistent with the teaching provided in the specification and original claims 41-54.

In preparing the above-noted amendments, careful attention was paid to ensure that no new subject matter has been introduced.

Referring now to the text of the Office Action:

- claims 1, 6, 21 and 26 stand rejected under 35 U.S.C. § 102(b), as being unpatentable over the teaching of United States Patent No. 5,383,221 (Akita et al.);
- claims 2-5, 7-9, 13-18, 22-25, 27-29, 33-38, 41-47 and 49-52 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over the teaching of United States Patent No. 5,383,221 (Akita et al.); and
- claims 10-12, 19-20, 30-32, 39-40, 48 and 53-54 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant appreciates the Examiner's indication of allowable subject matter in claims 10-12, 19-20, 30-32, 39-40, 48 and 53-54.

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Re-opening of Prosecution After Appeal Brief

Line 1 of the Office Action Summary states that the Present Office Action Mailed March 12, 2004 is "Responsive to communication(s) filed on 22 December 2003". Applicant notes that the communication(s) filed on 22 December 2003 was Applicant's Appeal Brief filed pursuant to 37 C.F.R. § 1.192. However, the Examiner has not expressly re-opened prosecution, as described at MPEP 1208.02. Accordingly, Applicant infers that the Examiner has withdrawn the finality of the Office Action mailed August 22, 2003, and re-opened prosecution, in order to apply new grounds for rejection. Written confirmation by the Examiner would be appreciated.

Rejections under 35 U.S.C. § 102(b)

At paragraph 2 of the detailed action, the Examiner asserts that "Akita et al. disclosed a method of controlling data traffic in a wireless communications network comprising a plurality of wireless terminals and base stations wherein the method having the steps of examining performance each wireless link to identify a poorly performing wireless link and temporarily interrupting the bi-directional data transmission over the poorly performing wireless link (col. 6/ln. 4-63)." For the reasons set forth below, this interpretation of the Akita et al. reference cannot be supported by its disclosure, and the claim rejections based thereon cannot be sustained as a matter of law.

United States Patent No. 5,383,221 (Akita et al.) teaches a mobile station unit and channel switching method in which the mobile station monitors the quality of its link with the bases station and, if the link quality deteriorates, the mobile station attempts to execute a "hand-off" to a new base station. Thus, "the mobile station unit communicates with a base station through time-division multiplexed control and communication channels. The mobile station unit includes a line quality detecting section for detecting the deterioration of the line quality occurring during communication, and a control section for controlling the entire unit. The control section includes a retrieval section which, when the deterioration of the line quality is detected by the line quality detecting section, interrupts current communication with a base station unit during a predetermined period, receives a control channel from another (new) base station unit during that period and then retrieves predetermined information, and a channel

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switching section which, when the predetermined information can be detected by the retrieval section, terminates the current communication with the base station and performs a process of connection to the new base station unit on the basis of the predetermined information."  
(Abstract)

As described at column 6, lines 4-63, and illustrated in FIGs. 3-5 of the patent, when a deterioration of the link (between the old BS and the mobile station) is detected, the controller unit of the mobile station attempts to establish a new link to another base station (BS). Thus, the radio section is tuned to the "new BS control channel frequency only during BCCH frame period" (FIG. 3, block d) in an effort to detect the BCCH frame from the new BS. If the BCCH frame is detected (block e), the new BS channel is kept (block g); communications with the old BS terminated (col 6, line 28) and a link established with the new BS set up (FIG. 3, blocks h-j). If the BCCH frame is not detected, then communication with the old BS is resumed.

In the system of Akita et al., communication interruption will only occur in two situations, namely: during a BCCH frame period; and, if the BCCH detected, during subsequent processing to establish a link with the new BS. In the first scenario, "... communication is interrupted only during the BCCH frame period (a short period) to receive the control channel and retrieve the BCCH. When the BCCH cannot be detected, the communication with the old BS is resumed. Thus, though an instantaneous interruption of one frame occurs for each superframe until the BCCH is detected, the communication can be continued. Because one frame period is generally short, say, of the order of 5 ms, and the line quality is deteriorated in a zone switching area, the instantaneous interruption of one frame will not have an adverse effect on the communication quality." (col 6, lines 35-49) The person of ordinary skill in the art will immediately recognise that, in this scenario, communication interruption is solely due to the fact that the radio section is tuned to the control channel frequency of the new BS during the BCCH frame period. This means that the mobile station will not receive data transmitted by the old BS during this period.

However, the skilled artisan will immediately recognise that there is absolutely no similarity between temporarily interrupting reception of data, as in Akita et al, and temporarily interrupting bi-directional data transmission, as required by the present invention. Akita do not

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teach or suggest that the old BS stops transmitting data while the radio unit is tuned to the control channel of the new BS. Indeed, the ability of the mobile unit to immediately resume communications with the old BS upon failure to detect the BCCH frame from the new BS, suggests that the old BS does, in fact, continue to transmit data.

The second scenario, which is illustrated at blocks g-1 of FIG. 5 of Akita et al., clearly involves releasing the link with the old BS, and the establishment of a new link with the new BS. As discussed at length in arguments filed by the Applicant on May 23, 2003 and October 22, 2003, releasing a link involves a permanent termination of data traffic through that link. Thus the person of ordinary skill in the art will immediately recognise that this scenario does not even attempt to temporarily interrupt bi-directional data transmission, as required by the present invention.

In light of the forgoing, Akita et al clearly do not teach all of the features of claims 1 and 21, and thus cannot sustain a rejection of claims 1, 6, 21 and 26 under 35 U.S.C. § 102(b).

Rejections under 35 U.S.C. § 103(a)

As mentioned above, Akita et al do not teach or suggest the temporary interruption of bi-directional data transmission through a poorly performing link, as required by independent claims 1, 21 and 41. Nor do Akita et al. provide any motivation for such a step, or suggest any advantages that may be obtained thereby. Accordingly, Akita et al cannot support a rejection of claims under 35 U.S.C. § 103(a). None of the other prior art supplies the missing teaching.

In light of the foregoing, it is respectfully submitted that the presently claimed invention is clearly distinguishable over the teaching of the cited references, taken alone or in any combination. Thus it is believed that the present application is in condition for allowance, and early action in that respect is courteously solicited.

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If any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this response, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 19-5113.

Respectfully submitted,



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